

**MANUFACTURING METHOD AND APPARATUS OF OPTICAL DEVICE
AND REFLECTION PLATE PROVIDED WITH RESIN THIN FILM
HAVING MICRO-ASPERITY PATTERN**

Abstract

There is provided a manufacturing method of an optical device having a micro-asperity pattern that has various kinds of accurate three-dimensional shapes and is realized as thin films. A substrate is coated with a resin thin film made of a photosensitive resin, and the temperature of the resin thin film is controlled so as to be lower than the photosensitivity extinction temperature of the resin thin film. A micro-asperity pattern of a stamper is pressed against the resin thin film when the resin thin film is in a softened or melted state by pressurizing means, whereby a micro-asperity pattern is formed on the surface of the resin thin film.

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